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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,408	11/19/2001	Akira Mase	0756-2392	8524

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EXAMINER

DUDEK, JAMES A

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,408

Applicant(s)

MASE, AKIRA

Examiner

James A. Dudek

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Information Disclosure Statement

The parent cases have not delivered from the file repository. When they are received the references in those files will be considered. Regarding the complaint/answer, these are not prior art and thus are not considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- rejected under 35 U.S.C. 103(a) as being unpatentable over Hatada et al. (750) in view of Tsukagoshi et al. (657).

Per claims 1, 5, 22 and 34-37, 750 teaches providing at least one first electrode [14] over a first substrate [12]; providing a circuit for supplying driving signal to the at least one first electrode [see paragraph bridging columns 2-3], the circuit having at least one second electrode [24]; and electrically connecting the first and second electrodes through a conductive adhesive [28], wherein the conductive adhesive extends lengthwise beyond an end of the first electrode and an end of the second electrode [see column 36th paragraph; : “resin 28 is disposed at a peripheral portion of the connection, as shown by numeral 28a, to obtain higher reliability”], and wherein the conductive adhesive comprises a UV cured resin [see column 3, paragraph 4th paragraph],

750 lacks the resilient conductive particles and hard particles, and the first electrode comprises a transparent conductive oxide.

Regarding the transparent conductive oxide first electrode, it was notoriously well known to use ITO electrodes for there high transparency. Accordingly, it would have been obvious to

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one of ordinary skill at the time the invention was made to ITO electrodes with 750 in order to increase the transparency of the electrodes.

750 teaches conductive particles but lacks resilient and hard particles. 657 at column 11, lines 14-34 teaches using both hard and resilient particles at the same time for the benefit of maintaining a spacing between the electrodes and the electrical connection between the two electrodes. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the hard and soft particles of 657 with 750, as taught by 657 to improve the electrical connection and maintain a specified space between the electrodes.

Per claim 2-3, see 4 column, line 54 and column 6, third paragraph.

Per claim 4, 657 lacks an explicit teaching that the rigid particles are formed from silicon oxide. However, silicon oxide was well known to be rigid and more rigid than polystyrene. Furthermore, silicon oxide particles were used in LCDs for maintaining cell gap thickness. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine a silicon oxide particles with 750 in view of 657 in order to maintain electrode separation, as these types of particles were known for maintaining gaps.

Per claim 6, see column 6.

Per claims 9 and 16, 750 in view of 657 lacks the ratio of the hard particles lower than the resilient particles. This is not taught but a matter of design choice. The point of 657 combination of particles of resilient and hard particles is provide an excellent electrical connection. By increasing the number of hard particles that benefit start to diminish but the gap thickness becomes more uniform. Thus it becomes a question of trading uniformed gap thickness for the electrical connection, realizing that some hard spacers are needed.

Per claim 13, see column 11.

Per claims 24-31, 750 in view of 657 lacks the laser scribing method of forming the electrodes. However, is was notoriously well known to laser scribe electrode to pattern the electrode that are accurate in size. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the laser scribing technique with 750.

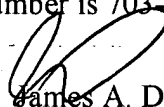
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 308-4782. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.


James A. Dudek
Primary Examiner
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March 10, 2003